

Boulder Creek Restoration Project

Scenic Resources Report

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for:

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Table of Contents

Introduction.....	1
Relevant Laws, Regulations, and Policy.....	1
Regulatory Framework.....	1
Topics and Issues Addressed in This Analysis	3
Resource Indicators and Measures	3
Methodology	4
Spatial and Temporal Context for Effects Analysis	4
Affected Environment.....	4
Existing Condition.....	4
Landscape Character	5
Scenic Attractiveness.....	6
Landscape Visibility	6
Existing Scenic Integrity	8
Environmental Consequences	11
Past, Present, and Foreseeable Future Activities Relevant to Cumulative Effects Analysis. 11	
Alternative 1 – No Action	12
Effects Common to All Action Alternatives	13
Vegetation Management Prescriptions.....	13
Fuel Reduction Activities.....	15
Other Resource Management Activities.....	16
Alternative 2 – Proposed Action	17
Alternative 3	25
Summary	25
Summary of Environmental Effects	25
Monitoring Recommendations.....	26
References Cited	27

Tables

Table 1: Scenery Integrity Level Matrix (IPNF Scenery Implementation Guide (Draft), p. 21)	2
Table 2: Concern Levels of Various Viewing Platforms for the Boulder Creek Project Area.....	7
Table 3. List of Past, Present and Reasonably Foreseeable Actions on National Forest Lands	11
Table 4. Summary comparison of environmental effects to Scenic Resources.....	26

Figures

Figure 1: View from Black Mountain Lookout site looking south toward Iron Mountain and the Boulder Creek drainage.....	6
Figure 2: Concern Level 1 and 2 viewing platforms relevant to the Boulder Creek Restoration Project.....	8
Figure 3: View from US Highway 2 looking south into the North Creek drainage. Geometric shapes and straight lines are visible in spite of regeneration.....	9
Figure 4: Satellite photograph (Google Earth capture) showing past harvest in eastern portion of the project area, including East Fork Boulder Creek, North Creek, and other drainages.....	10

Introduction

This report describes the existing condition of the scenic resources for the Boulder Creek Restoration Project area and its surroundings, and the anticipated effects of the activities proposed under various alternatives. The project area is located on the Bonners Ferry Ranger District of the Idaho Panhandle National Forests (IPNF) in Boundary County, Idaho. It lies approximately 10 miles southeast of Bonners Ferry, Idaho, and about 15 miles west of Troy, Montana. The project area boundary encompasses about 40,612 acres surrounding Boulder Creek, including North Creek, East Fork Boulder Creek, Middle Fork Boulder Creek drainages as well as other minor drainages.

Portions of the project area are visible in varying distances from the Black Mountain Lookout, Forest Trail 182, and US Highway 2, Forest Road 408, recreation sites, and other forest roads and trails. People use the area for a variety of activities, which in turn enhance visitors' quality of life and contribute to the area's sense of place.

This report analyzes the visual impacts of proposed management activities to determine whether the activities will be consistent with direction for scenic resources set forth in the Idaho Panhandle National Forests Land and Resource Management Plan (Forest Plan). Terminology used in this report is defined in Agriculture Handbook No. 701, *Landscape Aesthetics: A Handbook for Scenery Management*. See this handbook for more information regarding scenery management.

Relevant Laws, Regulations, and Policy

Regulatory Framework

Land and Resource Management Plan

The Forest Plan provides forestwide and management area direction for scenic resources in the Boulder Creek project area.

- **FW-DC-AR-02:** The scenic resources of the IPNF complement the recreation settings and experiences while reflecting healthy and sustainable ecosystem conditions.
- **FW-GDL-AR-01:** Management activities should be consistent with the mapped scenic integrity objective, see Plan set of documents. The Scenic Integrity Objective is High to Very High for scenic travel routes, including the Pacific Northwest National Scenic Trail, designated Scenic Byways, and National Recreation Trails.
- **MA2b-GDL-AR-08. Recreational:** Management activities should be consistent with the Scenic Integrity Objective of Moderate to High in eligible recreational river segments.
- **MA6-GDL-AR-05:** Management activities should be consistent with the Scenic Integrity Objective of Low to High.

The IPNF Implementation Guide for Scenery Management: Understanding the how, what, and when of implementation under the 2015 IPNF Forest Plan (DRAFT) provides further direction on the application of the SMS within the context of the Forest Plan, and includes mapping of necessary SMS components, including CL 1, 2, and 3 viewing platforms and SIOs (mapped at the forestwide scale). This guidebook provides for refining and expanding on forestwide inventory information to ensure the sufficient level of detail necessary in describing both the affected environment and environmental effects.

Table 1: Scenery Integrity Level Matrix (IPNF Scenery Implementation Guide (Draft), p. 21)

Scenic Attractiveness	Distance Zone (Concern Level)								
	FG(1)	MG(1)	BG(1)	FG(2)	MG(2)	BG(2)	FG(3)	MG(3)	BG(3)
A - Distinctive	High	High	High	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
B - Typical	High	Moderate	Moderate	Moderate	Moderate	Low	Moderate	Low	Low
C - Indistinctive	High	Moderate	Moderate	Moderate	Low	Low	Low	Low	Low

Note: FG: Foreground; MG: Middleground; BG: Background

Based on the above matrix, within the foreground viewing distance of Black Mountain Lookout, US Highway 2, Forest Trail 182, Kootenai River, Boulder City townsite, and Boulder Meadows camping area, the SIO is High. In the middleground and background viewing distances of these viewing platforms, the SIO is Moderate. In the foreground and middleground viewing distances from the Forest Roads 314, 408, and 427, and Forest Trails 180 and 51, the SIO is Moderate, and in the background viewing distance the SIO is Low. (See the Table 2 below.)

Table 2: Scenery Integrity Level Matrix (IPNF Scenery Implementation Guide (Draft), p. 21)

Viewing Platform	Concern Level (CL)	Foreground Viewing Distance (0 – 1/2 mi.)	Middleground Viewing Distance (1/2 mi. – 4 mi.)	Background Viewing Distance (beyond 4 mi.)
Black Mountain Lookout US Highway 2 Clifty Mountain Trail (182) Boulder Meadows Boulder Town Site	1	High	Moderate	Moderate
Forest Road 314 Forest Road 408 Forest Road 427 Timber Mountain Trail (51) Middle Fork Boulder Trail (180)	2	Moderate	Moderate	Low

From all other viewing positions along area roads and the surrounding general forest area that offer views of the project, the SIO is Low.

Federal Law and Policy Direction

Federal law and agency policy provide direction for scenery management on public land, as it applies to natural resource management. In addition, the Forest Service Manual (FSM) includes direction in regard to scenery management. This direction is summarized below.

The National Environmental Policy Act of 1969 (NEPA) sets forth a national policy for the environment that provides for the enhancement of environmental quality. It states that it is the “continuing responsibility of the federal government to use all practicable means to assure for all Americans, aesthetically and culturally pleasing surroundings.” The Act directs agencies to develop practicable

methodologies for scenery management of “aesthetically and culturally pleasing surrounding.” It also requires a “systematic and interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts into planning and decision-making which may have an impact on man’s environment.”

FSM Section 2380 requires the agency to “inventory, evaluate, manage, and where necessary, restore scenery as a fully integrated part of the ecosystems of the National Forest System lands through the land and resource management and planning process. Scenery must be treated equally with other resources.” It also includes direction to utilize the Scenery Management System as described in Agriculture Handbook No. 701.

The Scenery Management System (SMS) as described in Agriculture Handbook No. 701, *Landscape Aesthetics: A Handbook for Scenery Management*, was adopted by the IPNFs with the FP. In regard to this project, SMS differs in its approach from the Visual Management System (VMS) developed in the 1970s in that it recognizes the potentially positive visual impact of man-made improvements of historic and/or cultural significance (e.g., cabins, fences, mining structures, etc.). Another important difference between the VMS and the SMS is that in contrast to the VMS, which specifically identified timeframes for meeting the objectives (e.g., 1 year to meet the Partial Retention objective), the SMS does not attach timeframes to meeting Scenic Integrity Objectives (SIO). Instead, timeframes for meeting SIO are disclosed in the project scenic resources report (i.e., this report) and the project specific NEPA document.

Topics and Issues Addressed in This Analysis

Resource Indicators and Measures

The resource indicator used to measure effects to scenic resources is Scenic Integrity. Scenic Integrity is measured qualitatively in terms of Scenic Integrity Levels (SILs). SILs range from Low to Very High, and are a description of the “degree of intactness and wholeness of the Landscape Character” (USDA 1995, p. 7), in relation to both the existing and desired scenic integrity. Furthermore, the use of scenic integrity as an indicator of change facilitates comparison with SIOs (identified as guidelines in the Forest Plan) to determine compliance of the project.

Both the existing condition and effects analysis refer to this indicator, and the effects analysis relate this to the forest plan direction for scenic resources.

The Forest Plan defines each of the SILs as follows (p. 124).

Very High – Landscape is intact with changes resulting primarily through natural processes and disturbance regimes.

High – Management activities are unnoticed and the landscape character appears unaltered.

Moderate – Management activities are noticeable but are subordinate to the landscape character. The landscape character appears slightly altered.

Low – Management activities are evident and sometimes dominate the landscape but are designed to blend with surroundings by repeating line, form, color, and texture of valued landscape character attributes. The landscape appears altered.

Methodology

Agriculture Handbook No. 701, *Landscape Aesthetics: A Handbook for Scenery Management*, was used to evaluate the proposed project. The Scenery Management System represents the best available science for achieving high-quality scenery as an outcome of National Forest management practices.

Information on the existing condition of scenic resources was collected during site visits during fall of 2016. CL 1 and 2 routes were visited. Photographs were taken from a variety of points along routes to determine seen areas and for use in the analysis phase of the project. CL 1 and 2 sites were also visited for the same purpose. The Forest Plan SIO map was consulted to determine relevant SIOs for the project area. Direction from the Implementation Guide was used to develop project-level SIOs based on visibility, viewing distance, concern, and scenic attractiveness. The potential impacts to scenic resources from the proposed project were determined based on the visits to the areas CL 1 and 2 viewing platforms, review of photographs of the project area, use of GIS data, and review of similar projects.

Spatial and Temporal Context for Effects Analysis

Management activities such as timber harvesting can effect scenic resources by creating changes in the form, color, line, or texture in a given viewing area. The degree of visual impacts from these actions depends on the interaction of elements in relation to the viewer, such as the surrounding landscape, slope, aspect, and frequency and duration of the view. There are a few identified routes and sites of concern (Concern Level 1, 2, and 3 viewing platforms identified in the Forest Plan) that offer views of the project area, as well as from the surrounding area. The visible effects of proposed activities may result in changes to form, line, color, and texture, resulting in contrasts to both the existing and desired condition.

For scenic resources, the spatial context of the effects analysis is the project area and includes all areas of harvest, prescribed burning, and other activity units, landings and processing areas (including slash disposal areas), and roads, and any other areas where ground-disturbing activities have the potential to impact scenic resources.

With regard to temporal context for direct and indirect effects to scenic resources, *short-term* refers to the first 5 year period following completion of implementation of timber harvest, slash disposal, regeneration, prescribed burning, and other activities proposed under this project. This period of time is associated with the greatest impact to scenic resources, including tree removal, ground disturbance and general change to the existing condition. *Long-term* refers to the period of time beyond that initial 5 years, and is associated with the recovery of vegetation, both grasses and shrubs, as well as early regeneration of the forest overstory.

For purposes of the cumulative effects analysis, the spatial context is the visible area within which the effects of the proposed action and the identified past, present, and reasonably foreseeable future actions are, or are expected to be, visible at the same time. The temporal context for the cumulative effects analysis will be the same as the direct and indirect effects analysis.

Affected Environment

Existing Condition

This section of the report describes the affected environment of the project area, and includes descriptions of the area landscape character, scenic attractiveness, landscape visibility, and existing scenic integrity.

Landscape Character

Landscape Character is defined as “an overall visual and cultural impression of landscape attributes – the physical appearance and cultural context of a landscape that gives it an identity and ‘sense of place’” (Landscape Aesthetics, pp. 1-2).

The landscape character of the area is partially described in the Lower Kootenai Geographic Area (GA) section of the 2015 IPNF Forest Plan:

The Lower Kootenai GA lies predominantly within Boundary County in Idaho, which is adjacent to British Columbia...Of the 659,000 acres within this GA, 408,670 acres (62 percent) are administered by the IPNF...The Lower Kootenai GA has had a historic reliance on logging and a strong connection with the wood products industry. The Kootenai Tribe of Idaho and the Confederated Salish and Kootenai Tribes have the right to hunt, fish, and gather within this GA under the Hellgate Treaty of 1855. Also contained within this GA are sites of cultural and religious significance important to Tribal history and modern use.

The GA extends from the high crest of the rugged Selkirk Mountains on the west, down steep, high-relief watersheds draining out the Selkirks in the low elevation Kootenai River Valley, then east back up to the crest of the Purcell Mountains in the northwest corner of Montana. The GA also includes the Cabinet Mountains that straddle Idaho and Montana. This entire GA was virtually glaciated, with a lobe of the continental glacier extending down the major valleys. Mountain glaciers covered most of the remaining area and carved steep, high relief mountain watersheds. The recent glaciation has contributed to the high diversity of this GA. (Forest Plan, p. 84)

More specifically, the project area is composed of very steep mountainous terrain typical of the Columbia Rockies region and within the Lower Kootenai GA. The project area is bisected by Boulder Creek, which provides opportunities for fishing and other recreational pursuits. The Middle and East forks of Boulder Creek, as well as other minor drainages feed into Boulder Creek before it empties into the Kootenai River at the eastern boundary of the project area.

Elevation ranges from approximately 2,000 feet to nearly 7,000 feet above sea level. Clifty Mountain, Iron Mountain, and Katka Peak are the higher points in the project area, extending just above between 6,200 feet to about 6,700 feet above sea level. Other higher points include Black Mountain, as well as Boulder Mountain, Middle Mountain, Star Mountain, and Timber Mountain along the southern boundary of the project.

Historically, the forest overstory was dominated by ponderosa pine, western larch, and western white pine, long-lived, fire-resistant species that would occupy a site for 200-300 years. These species were initiated by disturbances such as fire or insects and disease, as well as maintained in mature conditions by these disturbances, while other more shade-tolerant species were killed by periodic fires. The introduction of white pine blister rust, effective fire suppression, and land management activities such as high-grade logging, changed the character of these forests to those dominated by shade tolerant, less fire resistant species including Douglas-fir, grand fir, western hemlock, and lodgepole pine. These short-lived, late-seral species are disease-prone and drought-intolerant. Aspen was also a component of this area, but is also in decline, due to changing fire regimes and heavy browsing by ungulates.

Forest structure has also changed over time due to effective fire suppression as well. Openings in the forest canopy (historically resulting from stand-replacing fire), as well as old growth stands are underrepresented in comparison to the historic range.

These settings are characterized by a variety of visual conditions, ranging from early age, dense stands, to older stands with widely-spaced large diameter trees.

Activities of humans have affected the vegetation, wildlife, recreation activities, and economic conditions of the landscape. Today, people use the area to engage in a variety of pursuits that include hunting and fishing, camping (includes the multiple campgrounds along the river), hiking, firewood gathering, and driving for pleasure (both full-sized vehicles and OHVs).

Figure 1: View from Black Mountain Lookout site looking south toward Iron Mountain and the Boulder Creek drainage.



Scenic Attractiveness

Scenic Attractiveness is the “primary indicator of the intrinsic scenic beauty of a landscape and of the positive responses it evokes in people. It helps determine landscapes that are important for scenic beauty, based on commonly held perceptions of the beauty of landform, vegetation pattern, composition, surface water characteristics, and land use patterns and cultural features” (Agriculture Handbook No. 701, pp. 1-14).

Scenic Attractiveness is defined as Class A (Distinctive), Class B (Typical), or Class C (Indistinctive). Class A includes areas where landform, vegetation patterns, water characteristics, and cultural features combine to provide unusual, unique, or outstanding scenic quality *within the landscape character*. Class B (Typical) contains areas in which the natural and cultural features combine to create ordinary or common scenic quality, and Class C (Indistinctive) contains those areas where natural and cultural features (or the lack thereof) combine to provide low scenic quality. It is important to note that the frame of reference for scenic attractiveness is the landscape character description (Agriculture Handbook No. 701, pp. 1-16).

Along the Kootenai River corridor the Scenic Attractiveness is rated as Class A (Distinctive), with its combination of water, landform, and rock features coinciding to result in that unique scene. The remainder of the project area (i.e., outside the river corridor) are rated as Class B (Typical) for its uniform, closed-canopy forest, broken only occasionally by small parks.

Landscape Visibility

Landscape Visibility addresses “the relative importance and sensitivity of what is seen and perceived in the landscape” (USDA Forest Service 1995). Landscape visibility is affected by a number of factors including: context of viewers, duration of view, degree of discernable detail, and number of viewers” (USDA Forest Service 1995: 4-2). In general, the greater the number of people likely to view a landscape, and the longer the duration, the more sensitive the landscape is to modification. The proximity of the viewer to the particular landscape affects the visibility and sensitivity, as well as the physical characteristics of the landscape. Viewing distances for this analysis are: foreground (0 to ½ mile); middleground (½ mile to 4 miles); and background (beyond 4 miles). Of particular concern are travelways, such as primary highways and trails, as well as primary use areas such as campgrounds. The project area is visible from a few Concern Level (CL) 1 and 2 viewing platforms that were identified

during forest planning (*IPNF Implementation Guide for Scenery Management [DRAFT]*); these were viewing platforms were considered to assess visibility of proposed activities from these locations.

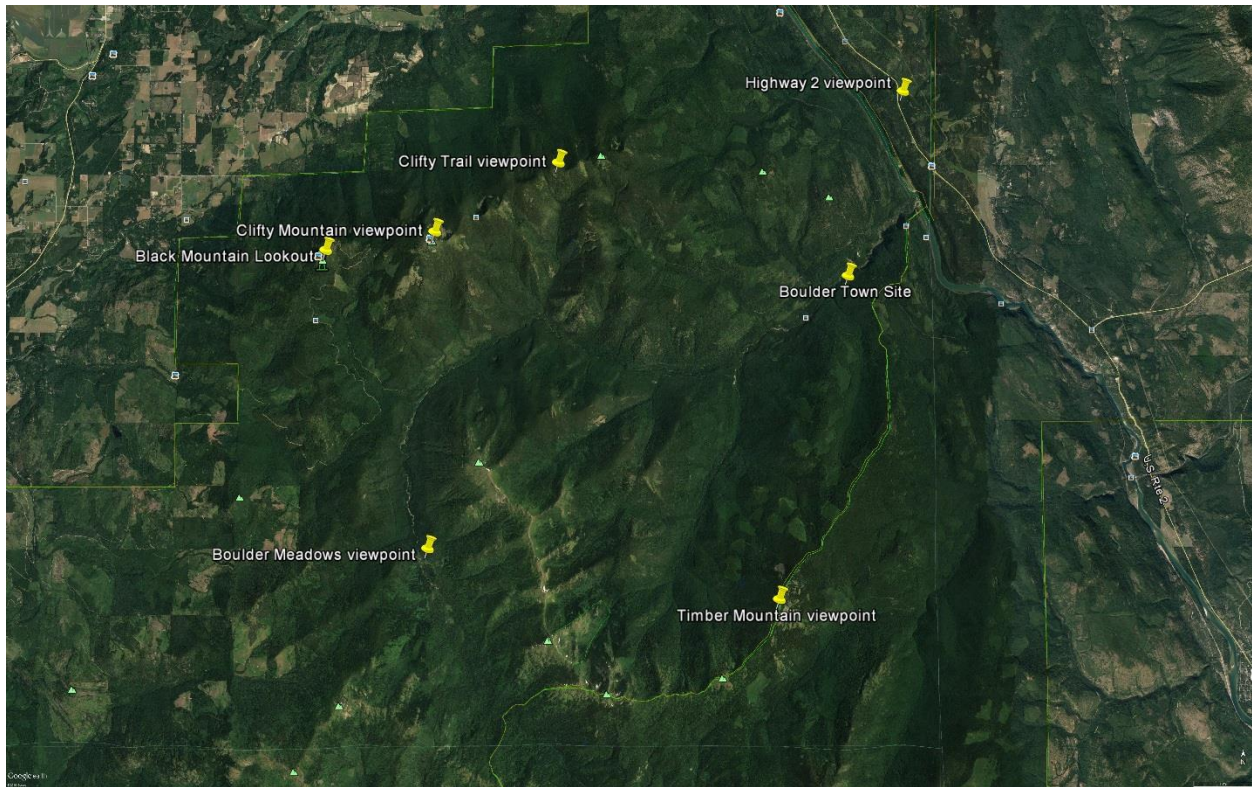
The following table identifies the CL 1 and 2 viewing platforms germane to the project. There were no CL 3 viewing platforms relevant to the project.

Table 2: Concern Levels of Various Viewing Platforms for the Boulder Creek Project Area

	Points of Interest	Routes/Roads	Trails	Rivers/Lakes
Concern Level 1	Black Mountain Lookout	US Highway 2	Clifty Mountain (Forest Trail 182 between Clifty Mtn. and Katka Peak)	Kootenai River
	Boulder Meadows			
	Boulder Town Site		Pend Oreille Divide (67)	
Concern Level 2	None	Forest Road 314	Timber Mountain (51)	None
			Bald Eagle Grouse Mountain (53)	
		Forest Road 408	Orville Heath (54)	
		Forest Road 427	Middle Fork Boulder (180)	
			Kootenai River Walk (184)	
Concern Level 3	None	None	None	None

For the purposes of determining effects of the proposed project, the CL 1 routes and sites with the greatest relevance are Black Mountain Lookout, Boulder Meadows, Boulder Town Site, US Highway 2, and the Clifty Mountain Trail. The CL 2 routes relevant to the project are Forest Roads 314, 408, and 427 and Forest Trails 51 and 180. These CL 2 routes are located largely within the project area, and offer primarily foreground and middleground views, as well as some background views of the project area. These routes and sites will be used to measure the effects of the proposed project, and will function as proxy for the other routes and sites identified in Table 1. Photos of the project area from a variety of viewpoints are provided below. Additional photos are in the project file.

Figure 2: Concern Level 1 and 2 viewing platforms relevant to the Boulder Creek Restoration Project



Existing Scenic Integrity

Scenic Integrity, as defined by the Scenery Management System (SMS), indicates “the degree of intactness and wholeness of the landscape character ... Landscape character with a high degree of integrity has a sense of wholeness, intactness, or being complete” (USDA Forest Service 1995). Scenic integrity is stated in degree of deviation from the landscape character as follows:

Very High: Landscape is intact with changes resulting primarily through natural processes and disturbance regimes.

High: Management activities are unnoticed and the landscape character appears unaltered.

Moderate: Management activities are noticeable but are subordinate to the landscape character. The landscape appears slightly altered.

Low: Management activities are evident and sometimes dominate the landscape but are designed to blend with surroundings by repeating line, form, color, and texture of valued landscape character attributes. The landscape appears altered.

The project area has been affected by human activities and the impacts resulting from some of those activities are visible on the landscape. Activities within the project area having the impacts on scenic resources include wildfire, fire suppression, road construction, timber harvest, slash treatments, prescribed burning, tree planting, precommercial thinning, and developed and dispersed recreation sites. Of these, timber harvest, road construction, and fire suppression, have had the greatest impact on scenic resources.

Figure 3: View from US Highway 2 looking south into the North Creek drainage. Geometric shapes and straight lines are visible in spite of regeneration.



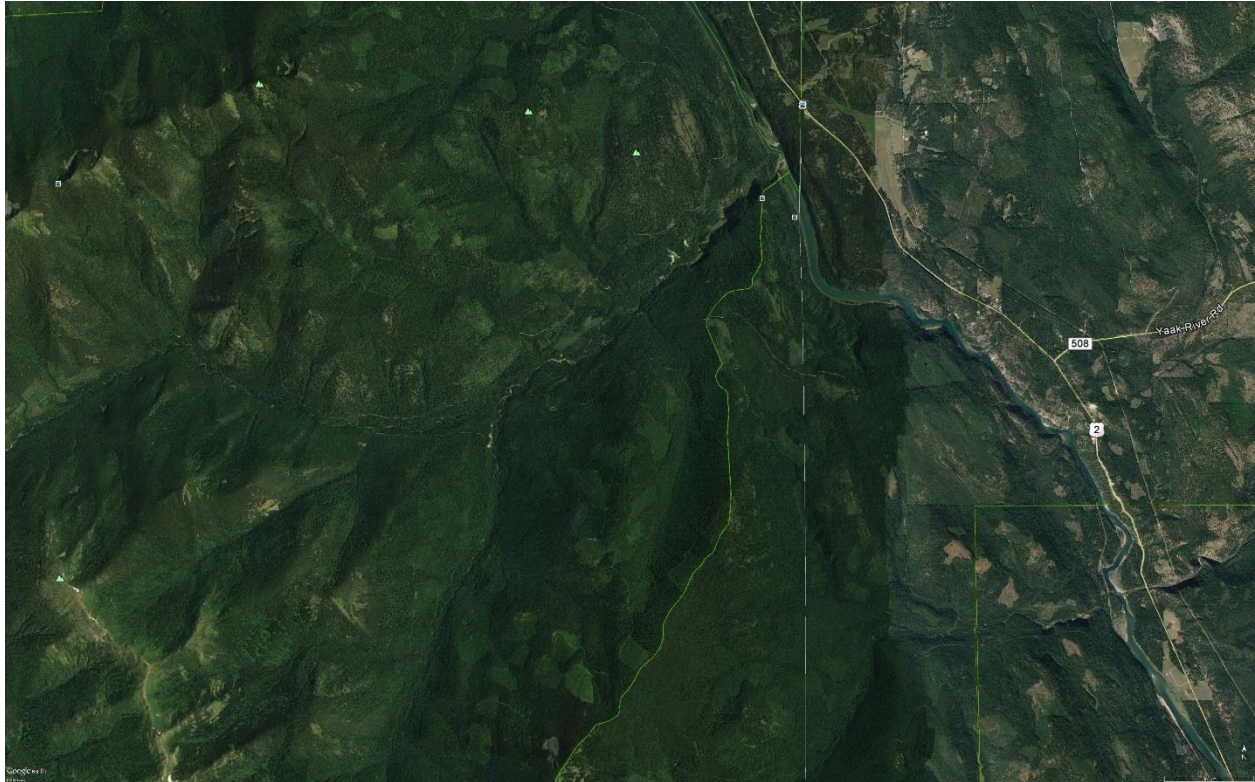
The effects of past timber harvest and road construction within the project area are greatest from higher elevation positions (including the identified Concern Level 1 and 2 viewing platforms) in all viewing distances where the form, shape, and color contrasts resulting from multiple harvest units are visible simultaneously. The effects of past timber harvest are also visible in the foreground viewing distance from area roads and trails, and can be more noticeable depending on the amount of vegetation retained and regeneration that has occurred since harvest. These effects include color and texture contrasts associated with ground disturbance and groundcover and tree regeneration. The effects of road construction, such as cut and fill slopes, associated with harvest activities are similarly visible (especially from higher elevations), and can result in strong contrasts due to the linear nature; however, these effects are limited to that area outside of the Inventoried Roadless Areas (which is a large portion of the project area) and where they are seen, they are often minimized as early regeneration and brush obscure them from view.

Over the last century, a combination of disease and fire suppression has impacted the forest vegetation, and consequently resulted in effects to scenic resources within the project area. As described in the Vegetation Resource Report, the combination of blister rust (and subsequent insect and disease attacks and timber harvest) and fire suppression, have changed forest composition and structure across this landscape. The lack of early-seral species and the existing “homogenization and simplification of the landscape” (see Vegetation Resource Report) has resulted in the “homogenization and simplification” of the scenery. This is expressed by the lack of variety in texture, color, and form when compared to the visual condition associated with the historic range, and with the desired condition outlined in the Forest Plan. (See the “Landscape Character” section of this report, and the Vegetation Resource Report.)

The current forest composition is composed of species which thrive in shaded conditions, but that are susceptible to insects and disease. In addition, many of the stands are composed of dense stems that preclude visual penetration into the stand.

From the identified CL 1 and 2 viewing platforms, the project area would meet a Moderate to High Scenic Integrity Level (SIL), due to the lack of visible deviations from the existing landscape character and the amount of visual deviation that has recovered through regeneration. From the viewing positions in the surrounding area (including some CL 1 and 2 viewing platforms), the project area would meet a Moderate SIL where these deviations are more noticeable but remain subordinate to the landscape character. In spite of this current visual condition, however, the landscape is continuing to move away from the desired condition for both vegetation and scenic resources as it is described in the Forest Plan.

Figure 4: Satellite photograph (Google Earth capture) showing past harvest in eastern portion of the project area, including East Fork Boulder Creek, North Creek, and other drainages.



Environmental Consequences

Past, Present, and Foreseeable Future Activities Relevant to Cumulative Effects Analysis

Openings created by timber harvest activities from past projects are still evident within the project area. Although most openings have regenerated, many still appear as distinctive openings with lineal edges and unnatural shapes. These are primarily located in the eastern portion of the project area.

Present and foreseeable future activities include the North Zone Roadside Salvage project which proposes harvest along roads both within and outside the project area. The Starry Goat project located on the Kootenai National Forest is located east of the project area and has the potential to affect scenic resources on that forest. Other past, present and future activities including prescribed burning, tree planting, public use, road construction, decommissioning, and maintenance, trail maintenance, precommercial timber stand improvements, weed spraying, helispot maintenance, abandoned mine activities, infrastructure maintenance at communication sites, and private land activities.

Table 3 provides a list of past, present, and reasonably foreseeable future activities considered in the cumulative effects analysis for scenic resources.

Table 3. List of Past, Present and Reasonably Foreseeable Actions on National Forest Lands

Action	Past	Present	Reasonably Foreseeable
Timber harvest activities	X	X	X ¹
Prescribed burning for site prep and fuels treatment	X	X	
Tree planting	X	X	
Public activities: firewood cutting, driving roads, camping, snowmobiling, hunting, hiking, berry picking	X	X	X
Road construction	X		
Road storage and decommission	X	X	
Road maintenance	X	X	X
Wildfires	X		Unknown
Fire suppression (Dependent on unknown wildfire occurrence. In addition, if wildfire occurs, the fire management strategy would be based on fire location, time of year, fuels conditions, and other factors. For example, late season fires in the backcountry / proposed prescribed burning areas may be allowed to burn, provided they are meeting resource objectives).	X	X	Unknown
Trail maintenance	X	X	X
Pre-commercial timber stand improvement	X		X
Spraying herbicides to control and prevent noxious weeds IPNF WEEDS EIS	X	X	X
Clearing brush and trees to maintain helispots	X	X	X
Abandoned mines and mining activities.	X	X	X

Action	Past	Present	Reasonably Foreseeable
Radio and Telecommunication infrastructure maintenance on Black Mountain.	X	X	X
Private Land Activities in Project Area (50 acres or 0.1%)	X	X	X
Adjacent Starry Goat Project (Kootenai National Forest)			X
X ¹ - The North Zone Roadside Salvage (NZRS) project would remove hazard trees and blow down along selected open National Forest System roads in the project area. This project is expected to cause minimal negative effects to traffic flow and also because no equipment would travel off the road surface. Design features from both the NZRS and the BCRP would apply.			X

Alternative 1 – No Action

No direct, indirect, or cumulative effects to scenic resources would result from selection of the No-Action Alternative.

Under this alternative, natural processes would carry on as openings in the tree canopy from past management activities continue to recover tree growth, and over time would fill in unnatural appearing openings, obscuring the effects of at least some of these activities, including road construction. It is expected that existing unnatural-appearing, hard-edged openings, and exposed road cut and fill slopes would remain evident for another 10-15 years.

Under this alternative, the existing condition would prevail, and the current trend of the declining overstory of western larch, western white pine, whitebark pine and ponderosa pine and increase in the shade tolerant understory of fir species, cedar, and hemlock would continue. This will increase the areas that are dominated by the even, finely textured forest cover, which will be evident in middleground and background viewing distances. In the foreground viewing distance from the surrounding areas, views will more consistently be of medium-size class trees as larger trees are killed, with an understory of shade-tolerant species that will reduce visual penetration into the stands.

This situation will further result in a “homogenized and simplified” landscape, from a scenic resources standpoint, as contrast and interest associated with color and texture are reduced in all viewing distances. To some forest visitors, the visual appearance which would result from the no-action in the long term has aesthetic appeal. However, it results in a reduction of natural diversity in the long term, less color and texture variety, and it does not move the project area toward the forest-wide desired condition for scenic resources in which “scenic resources of the IPNF... reflect healthy and sustainable ecosystem conditions” (Forest Plan, p. 34).

Effects Common to All Action Alternatives

Vegetation Management Prescriptions

Activities proposed under the action alternatives would result in changes in stand and canopy characteristics depending on the type of treatment proposed.

Precommercial Thinning / Sheltered Fuel Break

In the short term, this treatment would result in a more open stand that would allow more visual penetration into the stand as seen in the foreground viewing distance. Stems would be spaced farther apart. Slash would be visible laying on the ground, but would be less evident as that felled vegetation loses its needles and begins to break down. Effects of this treatment in the middleground and background viewing distance would be seen as a slight change in texture, depending on viewing angle and viewing distance. In the long term, larger trees would be expected with greater spacing in all viewing distances with the attendant increase in visual penetration into the stand.

Seedtree with Reserves

In the short term, this treatment will result in created openings, with 5 to 10 trees per acre remaining (approximately 5 to 15 percent canopy cover remaining). Groups of trees, or reserves, would be retained within the stand. This will be perceived as a change from the current appearance of the stand. In the foreground viewing distance, especially from viewing platforms adjacent to the units, this treatment will be very visible. In the middle- and background viewing distances, the effects of this treatment may be noticeable depending on specifics of each unit, including slope, aspect, and viewing distance. In general, large openings could create areas of high contrast depending on the shape of the unit, as well as amount and arrangement of any potential leave trees and the relationship of the unit to surrounding openings or past cutting units. On the other hand, smaller openings would potentially have less of an effect, but this is also dependent on location and viewing distance.

Immediately following treatment, there would be a reduction in the number of standing trees as viewed in all viewing distances. Creation of these openings may produce a line between harvested lands and less intensively harvested or unharvested lands, which may appear obvious in all viewing distances, depending on the areas surrounding the unit.

Beyond the short term, effects would be reduced, as vegetation recovers, especially grasses and other ground cover. In the long term, re-planting as described in the proposed action will result in regeneration of western white pine and western larch.

Many of the units in the surrounding area are adjacent to one another and create patches that exceed the 40 acre limit. These are described in the Vegetation Resource Report, and range from 43 acres to 440 acres in size. The combined effect of harvest in these units will be greater due to their combined size than those described in the “Effects Common to All Action Alternatives” section above, but can be minimized by leaving groups and clumps of trees throughout these units. To address the effects of creating patches over 100 acres, retain leave trees in groups to effectively and adequately provide vertical structure and break up the created openings, especially as seen from the identified viewing platforms. These leave trees would emulate the structure that would remain after a natural mixed-severity wildfire. Coordinate design and layout of these units and leave patches with the landscape architect.

Shelterwood with Reserves

The effects of this treatment will be similar to that described for the seedtree with reserves treatment. The visual effect of this treatment will be a created opening, but will differ from that treatment in the number of trees retained within the units, as well as a higher percentage canopy cover following treatment.

Group Selection

The effects of this treatment on scenic resources will also be similar to the seedtree with reserves treatment, but will result in smaller openings scattered throughout the unit, separated by thinned areas. The commercial thinning treatment will also result in effects to scenic resources. In the short term, these effects will result in more open stand conditions similar to the shelterwood and seedtree treatments except with larger trees remaining. Visual penetration will be increased in the foreground viewing distance, a beneficial result of thinning. It is anticipated that middleground and background viewing distances will reveal a change in texture where the ground is visible between the remaining trees, with small created openings throughout the unit.

Effects Associated with Harvest and Construction Operations

In all viewing distances, form and shape of proposed units will be critical to avoiding visual impacts associated with creating shapes and patterns which do not borrow from the surrounding natural patterns to the extent possible. This will be of greatest importance in the design and layout of those units which will be visible from the identified CL 1 and 2 viewing platforms, and design and layout operations will need to be accomplished with these viewing platforms in mind.

In the foreground viewing distance, effects associated with ground disturbance resulting from logging operations, including temporary road and landing construction and use, skid trails, slash, and slash piles will be visible. Stumps and woody debris trees will also be visible, especially in the short term, until grass and brush grow up to a size great enough to screen these visual effects (usually within one to two growing seasons). Cut tree stumps can affect visual resources in the short term and are most noticeable in foreground views. To minimize this effect, all stumps should be cut as low as possible, and stumps visible within 100 feet of CL 1 viewing platforms would be cut as low as possible (maximum 8").

In the long term, it is expected that many of the impacts associated with project operations will have dissipated, as seen in the foreground viewing distance. Groundcover of grasses and some shrubs are expected to have recovered, regeneration is expected to have begun, together screening some stumps and downed woody debris left in the unit. Effects of slash piling and disposal will have also dissipated, although some material not consumed may remain.

Effects of harvest using a skyline yarding system impose additional effects when compared to a ground-based logging system. This will be especially true in the group selection units, where a commercial thinning treatment is proposed between the group selection openings. These effects relate primarily to the creation of a corridor where all the trees are removed, broken between by areas that are thinned – where overstory trees are removed, changing the texture of the stand compared to surrounding untreated areas. This effect is visible in all viewing distances, but is most prevalent in middleground and background views where corridors are most discernible over the entire unit. These effects can be minimized by limiting the width of the corridors to that necessary to thin the stand, which is included as project design features.

In the short term, soil disturbance related to landings may be visible depending on location and screening by remaining vegetation. Landing construction can affect scenery by exposing light colored soils and creating noticeable color contrasts which have the potential to be visible in all viewing distances. Landings would be most evident during project implementation before large piles of logs and slash are

removed and immediately after project implementation until revegetation of the landing occurs. With application of project design features it is anticipated that these disturbances, although they may be evident, would remain subordinate to the characteristic landscape. Actions such as recontouring temporary roads and landings, reseeding roads, landings, and slash piles, minimizing cuts and fills associated with temporary construction, and locating these disturbances out of sight from the CL 1 and 2 viewing platforms by utilizing topography and vegetation screening would all help to reduce impacts. (Effects of temporary roads are addressed later in this report.)

Special care should be taken during design, location and construction of roads and landings and design and layout of proposed units to avoid roads-associated visual impacts. Care should be taken to screen or otherwise minimize the potential visual impact of existing and proposed temporary roads and operations as seen from the identified CL 1 and 2 routes and sites. See the following sections for a CL 1 and 2 route and site analysis of the anticipated impacts and mitigations for individual units.

Fuel Reduction Activities

Effects associated with the prescribed burn units vary by viewing distance and over time. In the short term, effects will include blackened ground surfaces where grasses and brush are consumed, resulting in blackened dead shrubs and small trees. Larger tree boles will be blackened and some lower branches may be burned and killed by fire. Where high-intensity surface fire and passive crown fire is utilized, individual trees or groups of trees will be blackened and killed, resulting in a black-brown color in a patchy pattern. In general, immediately following burning, burned areas will result in stark color contrasts with the surrounding un-burned areas. It is anticipated that ground vegetation will recover to a limited degree within 1 year, and that trees killed in fire will turn gray and lose their bark in 2-3 years following burning.

In the long term, burned areas will recover with ground vegetation and shrubs, effectively reducing color contrasts, especially in shrubfields. In forested areas where fire was allowed to torch and crown, larger trees killed by burning will continue to stand and gray. The understory will green up with tree regeneration and shrub and grass recovery with increased sunlight and nutrients. Over the long term, dead trees will fall down and decompose as others mature.

In foreground viewing distance immediately following burning, changes in color and texture resulting from prescribed burning activities will dominate the viewshed. In the short and long term, as groundcover vegetation recovers, these effects will be ameliorated. These effects will be consistent in all prescribed burning activities, but recovery in forested cover areas where large trees are killed and left to fall, effects will take longer to recover.

In the middleground and background viewing distances, effects of prescribed burning of shrubfields will persist in the short term, but finer color and texture contrasts will be reduced by viewing distance in the long term. Prescribed burning units located in forested cover areas will be visible, especially where new openings are created with crown fire. These effects will persist into the long term as middleground and background viewing distances offer the broadest views of these treatments, conceivably revealing several openings at once.

Effects associated with burning will vary in intensity and visual impact, potentially interspersed with areas of unaltered, live vegetation, may result in color contrasts. Changes in texture would also result but would depend primarily on viewing distance. In general, however, these contrasts would be of small scale associated with the landscape. Effects from low-intensity fires may remain noticeable to the casual observer for 2 to 3 years, but would be reduced after one to two seasons of snow-cover and by grass and forb growth the following spring.

Other Resource Management Activities

Producing Forage for Wildlife

The effects of this activity are analyzed under the “Vegetation Management Prescriptions” and “Fuel Reduction Activities” sections above. See those sections for more information.

Controlling and Managing Spread of Invasive Plants

In the short term, the effects of this activity will appear as changes in color and texture primarily in the immediate foreground viewing distance (0-300 feet) from recreation sites and travel corridors such as roads and trails. These effects are expected to last only a few days, but will be visible from some of the identified CL 1 and 2 viewing platforms. In the long term, fewer invasive plants will result in more natural-appearing visual condition consistent with visitor expectations.

Improving Fish Passage in the Middle Fork of Boulder Creek

This activity would be screened in views from Forest Road 408, the nearest CL 2 viewing platform, but would be visible from Forest Road 628. Effects to scenic resources resulting from this activity would be ground and vegetation disturbance that may create contrasts with the surrounding area. These effects would be localized, limited in scope to the disturbed area, and would dissipate in the short-term once vegetation has recovered along this stretch of the creek. In the long term, the remaining visible effects will remain subordinate to the scenic character and be consistent with visitor expectations.

Improving Trail Parking Facilities

The effects of this activity will be visible from the nearby roads and trails which the facilities are designed to serve, including (in the case of the trailheads proposed for the Kootenai River Walk, Clifty Mountain Trail, and Dobson Creek Trail) will be visible from CL 1 and 2 viewing platforms. Ensure that design and construction will be consistent with the recreation setting, Forest Service direction, and with visitor expectations. The reroute of Forest Trail 136 would have minimal effect on scenic resources and also be consistent with visitor expectations.

Recreation and Heritage Resources

The effects of this activity will be visible from Forest Road 4402 and Forest Trail 51. Ensure that design and construction will be consistent with the recreation setting, Forest Service direction, and with visitor expectations.

Managing the Road System

Roads proposed to be placed in storage will continue to appear as a road in all viewing distances. Some vegetation such as grasses and brush may establish, and this may help to minimize visibility in foreground viewing distances, but will not have much of an effect in minimizing visibility in middleground and background viewing distances.

Roads proposed to be decommissioned will be blocked and vegetation allowed to recover in the short-and long term, including forest cover. A barrier will be visible on the end(s) of these routes as needed to prevent vehicle travel. In the long term, the area will be similar to the surrounding forest and consistent with visitor expectations.

Forest Road 1304G is proposed to be stored. This will have minimal effect on the existing condition of the road, on which vegetation and brush has been allowed to recover. Removal of drainage structures will

have minimal, localized effect on scenic resources. Reopening Forest Road 2209 will have minimal effect on scenic resources and will be consistent with visitor expectations.

Temporary road construction (including cut/fill construction and surfacing) can affect scenic resources by exposing light colored soils and creating noticeable color contrasts which have the potential to be visible in all viewing distances. While these roads would be fully recontoured after trees have been removed from the area, a break in the tree canopy (where trees remain on either side of the road), may be noticeable in the foreground viewing distance. In middleground and background viewing distances, road construction can result in the road itself (with its attendant contrasts) being visible, or as a break in the forest canopy, and can dominate the scenic character depending on viewing position prior to recontouring. Although these contrasts may be evident they would be subordinate to the scenic character, following recontouring, in the long term.

Development of Gravel Pit

The effects of development of the gravel pit on FR 628 will include the introduction of colors, textures, forms, and shapes that will contrast with scenic character of the surrounding area. However, it will not be visible from any of the CL 1 and 2 viewing platforms identified in the Forest Plan. During operation, and in the short term following use of the pit, the site would meet a Scenic Integrity Level (SIL) of Low with identified design features implemented. As vegetation recovers in the long term, the site would meet the SIO Moderate.

Alternative 2 – Proposed Action

Project Design Features and Mitigation Measures

In order to minimize short term impacts, as well as meet SIOs and forest plan direction for scenery, the following design features are incorporated into the project. Some of these design features come from the “Northern Region Scenic Resource Mitigation Menu & Design Considerations for Vegetation Treatments,” dated March 11, 2011 (“Mitigation Menu”).

- In all units, treatment unit boundaries would resemble the shape of natural openings in the surrounding area, would not be symmetrical in shape, avoid right angles and straight lines, and follow natural topographic breaks and changes in vegetation. Unit boundaries would be shaped and feathered to reduce any unnaturally shaped edges and should reduce the hard edges that appear as man-made features on the landscape. (Mitigation Menu #1-4).
- Cut stumps as low as possible. Cut stumps visible from CL 1 viewing platforms less than 8” in height.
- Locate temporary roads, landings, and slash piles out of sight from the CL 1 and 2 viewing platforms by utilizing topography and vegetation screening as feasible. Minimize cuts and fills associated with temporary construction, and recontour and reseed temporary roads, landings, and slash piles when harvest activities are completed.
- Vertical structure would be retained within the harvest units and unit edge treatments would more effectively emulate natural openings.

- Retain groups of leave trees to provide vertical structure within the harvest area and break up the opening. These would be both live and dead trees emulating the same structure that would remain after a natural mixed-severity wildfire. These leave areas would range from ¼ to 3 acres in size and may also include leave areas adjacent to unit boundaries. These areas can be combined with those required by wildlife-related project design features.
- For all skyline logging units, effects to scenic resources would be minimized by utilizing multiple setups for each unit, limiting the width of the corridors to that necessary to thin the stand.
- For patches over 100 acres (see Vegetation Resource Report), retain leave trees in groups to effectively and adequately provide vertical structure and break up the created openings, especially as seen from Concern Level 1 and 2 viewing platforms. These leave trees would emulate the structure that would remain after a natural mixed-severity wildfire. Coordinate design and layout of these units and leave patches with the landscape architect.
- Where harvest units are adjacent to old harvest units, feather the boundaries (within the both the proposed and old harvest units) to avoid creating unnatural-appearing edges between the old and proposed harvest units.
- In Seedtree and Shelterwood units within the immediate foreground (300') of Forest Roads 314, 408, and 427, (including units 40, 42, 46, 51, 52, 54, and 55,) break up views into the units by retaining clumps of reserve trees intermittently along the road edge of the unit. Leave trees provided to satisfy the wildlife project design feature will fulfill the intent of this feature.
- In units 234 and 236, retain reserve trees and clumps of trees to break up views of the temporary road (T23) as seen from Highway 2 in the middleground viewing distance.
- In units 233 and 235, locate and design harvest groups so as to not accentuate the temporary road (T23), and retain adequate leave trees below the road to screen views from Montana Highway 2.
- For the temporary road (T23) that accesses units 233-236, conserve topsoil and replace during recontouring activities.
- In units 233, 234, 235, 236, and 239 coordinate design and layout with archaeologist and landscape architect to minimize impacts to the historic site and maximize recreation and interpretive opportunities associated with the Boulder Town Site. As feasible, maximize views of cultural and historic interest while retaining and enhancing the recreation experience in a natural-appearing setting. Considerations might include retaining clumps and groups of trees based on views both on-site and off-site as well as proximity to cultural sites.
- Design and layout of the Black Mountain Sheltered Fuelbreak would be coordinated with the approved site development plan for the proposed lookout site.
- In units 48, 49, 52, 54, and 55, vary the elevation of the top of the harvest units to avoid creating and/or enhancing the linear road feature as seen from the Clifty Mountain Trail (182) and Middle Fork Boulder Trail (180).
- In units 164, 196, 208, 210, and 216 extend boundaries up and over ridgelines to eliminate the linear strip of trees above the harvest area, or retain enough trees below the ridgeline to avoid silhouetted trees along the skyline.

- In unit 128, avoid creating unnatural linear features that might result from using the private land boundary for the unit boundary.

Direct and Indirect Effects - Alternative 2

The following is a description of effects to scenic resources by identified Concern Level 1 and 2 viewing platform specific to activities proposed under Alternative 2.

Concern Level 1 Viewing Platforms

As stated in the “Landscape Visibility” section above, the Concern Level 1 viewing platforms to be analyzed include Black Mountain Lookout, Boulder Meadows, Boulder Town Site, US Highway 2, and Clifty Mountain Trail #182.

Black Mountain Lookout

The Black Mountain Lookout site is identified as a Concern Level 1 viewing platform. Due to its higher elevation location, the lookout site offers some of the broadest views of the project area.

Effects of harvest in several units would be visible from the Black Mountain Lookout site. Effects of harvest in units or portions of units 48, 49, 52, 54, and 55 located just above Boulder Creek in the middleground viewing distance. Effects of harvest in units or portions of units 160, 183, 190, and 196 (in the East Fork Boulder Creek drainage) would be visible in the background viewing distance.

Similarly, units 48, 52, and 55 face east, and are located in relation to a viewer at the lookout to reveal only a limited portion of the harvest units.

The prescription for units 160, 183, and 190 call for a seedtree with reserves treatment using a skyline logging system. The effects of this will be consistent with those described above. Project design features will minimize these effects by avoiding unnatural appearing lines and forms in these units, and by retaining some of the larger trees in the unit.

The sheltered fuelbreak proposed east of this viewing platform will be visible but only as a slight texture change from the existing condition.

Although in close proximity to this viewing platform, much of units 30, 34, and 241 are located on relatively steep southerly aspects, and as such are tipped away from the viewer at the lookout. This will effectively reduce the visibility as seen from the lookout site, as upslope vegetation will screen some portions of the units below.

The effects of prescribed burning in units or portions of units 1, 9, 11, 12, and 13 would be visible from the Black Mountain Lookout in the middleground and background viewing distances. These effects will be similar to those described under “Effects Common to All Action Alternatives” above.

Boulder Meadows

The Boulder Meadows recreation site is a small campground and parking area which facilitates access to a trail network in the upper portions of the Boulder Creek drainage and beyond. Located a few hundred feet from Boulder Creek, it is situated in a steep valley bottom.

Effects of harvest will be visible in units 48, 49, 51, 52, 54, and 55 in the foreground and middleground viewing distances, although these effects will be partially screened from view by intervening vegetation in and around the recreation site. Additionally, the same project design features described under the Clifty Mountain Trail viewing platform below will minimize impacts from this viewing platform as well for

these units. Effects of harvest in units 30, 34, 240, and 241 located just below the Black Mountain Lookout site will be visible in the background viewing distance. Effects of skyline harvest in units 30 and 34 will be visible. Effects of harvest in unit 38 are also expected to be visible in the middleground viewing distance. Effects will be similar to those described in the “Effects Common to All Action Alternatives” above.

The Boulder Meadows site is located within burn unit 12. In addition, portions of burn units 1, 11, 13, 14, will be visible in the foreground viewing distance, and burn unit will be visible in the middleground viewing distance. Effects will be similar to those described in the “Effects Common to All Action Alternatives” above.

Boulder Town Site

A portion of the Boulder Town Site is located within units 235, 236, and 239, and the effects of harvest in these units will be visible to viewers visiting the town site and the area surrounding it. Effects will be consistent with those described above for these Seedtree with Reserves and Group Selection harvest types. To minimize impacts to the setting of this site of historical and cultural significance, the current and anticipated use type and patterns should be considered during unit design, layout, and operations. Considerations might include retain clumps and groups of trees based on views both on-site and off-site as well as proximity to cultural sites. Throughout the project, emphasis in these units in proximity to the cultural features should emphasize maintenance or enhancement of the recreation experience while accomplishing the project purpose.

Effects of harvest in the eastern portions of units 60, 62, 64, 66, and 116 located above Boulder Creek will be visible from areas within the Boulder Town Site, but are oriented away from viewers, limiting the visual impact overall. Effects of harvest in other units, including units 118 and 122 in the Gable Creek drainage, will be more evident from this viewing platform following harvest and will be similar to those described in the “Effects Common to All Action Alternatives” section above. These are oriented toward the viewing platform making them more evident. However, it is anticipated that vegetation below these units will screen some of the effects of these units.

Effects of prescribed burning in burn units 1 and 4 will be visible from this viewing platform, and these effects will be similar to those described above under the section “Effects Common to All Action Alternatives” in middleground and background viewing distances.

US Highway 2

Effects of harvest in units 206, 208, 210, 214, 216, 218, 220, 222, 224, 233, 234, 235, and 236 would be visible from US Highway 2, primarily to those traveling southbound. On this high speed road, views of these units will be brief and dynamic, the viewing angle changing as viewers travel along this route. In addition, vegetation and topography are constantly changing the visibility (and therefore, views) from this viewing platform. As stated above, these effects would be most visible to southbound travelers, specifically on a segment of the highway approximately 1.5 to 1 miles from the Montana state line. Along this segment of the highway, viewer orientation to the proposed units is nearly direct and there is a lack of roadside vegetation which might otherwise screen the effects of harvest in these units (similar to other stretches in this vicinity).

Of these visible units, harvest in units 206, 210, 220, 235, and 236 are proposed to be accomplished through skyline yarding methods. These effects will be similar to those described under the section “Effects Common to All Action Alternatives” as seen in the middleground viewing distance. Project design features described in that section and set forth in the “Project Design Features and Mitigation Measures” section should be utilized, including minimizing the width of skyline corridors, using multiple

setups for skyline units, and using a skyline system with lateral capability to maximize distance between corridors.

The effects of harvest in units 233, 234, 235 and 236 will be most visible, both due to orientation to the viewer on the highway, as well as the length of that view when compared to the other units visible from the highway. Project design features are included to minimize impacts as seen from this viewing platform and the Boulder Town Site.

The temporary road that is proposed to traverse units 233 and 234 will likely be visible from this viewing platform as well. The effects of this road are consistent with those described above under the section “Effects Common to All Action Alternatives”, but are expected to be more pronounced in unit 234, where more trees will be removed under the seedtree harvest. This is in comparison to the road segment located in unit 233, where fewer trees will be removed overall, thereby screening the visual impact of the road from this viewing platform. However, to minimize short- and long-term effects to scenic resources, it is recommended that trees (including individual trees and groups/clumps) be retained on the downhill side of the temporary road. These leave trees will help to screen the road from the viewing platform and/or break up the visible portions of this linear feature.

Clifty Mountain Trail (182)

Due to its location in relation to the project area, the Clifty Mountain Trail (Forest Trail #182) offers some of the broadest views of all of the identified Concern Level 1 and 2 viewing platforms. As such, several of the units and effects of treatment would potentially be visible in background views of approximately 4 miles or more from this route. The effects of this alternative are measured from this viewing platform between Clifty Mountain and Katka Peak.

Effects of harvest in units located below the Black Mountain Lookout (30, 240, and 241), as well as in units in the East Fork Boulder Creek drainage (specifically, units 144, 160, 162, 164, 166, 168, 170, 178, 182, 183, 184, 186, 188, 190, 196, 198, 200, 202, 204, 210, 216, 218, 220, 222), and the Boulder Creek drainage (units 38, 40, 48, 49, 50, 51, 52, 54, 55), will be visible. These effects will be visible primarily in the middleground and background viewing distances from the trail. The effects of harvest in these units will be similar to those described in the “Effects Common to All Action Alternatives” section above.

The combined effect of harvest that will create patches over 40 acres (such as those seen from this viewing platform) is described in the “Effects Common to All Action Alternatives” section above. It will be imperative that units are laid out with consideration to overall appearance from this viewing platform to avoid creating unnatural forms and shapes, striving for results that more resembles natural disturbance patterns.

The effects of harvest within the McGinty and Gable Creek drainages would generally not be visible from this viewing platform, except for units 66 and 70. Although the effects of harvest in unit 66 will likely be obscured in views from this viewing platform due to vegetative screening, the effects of harvest in unit 70 will be visible, in some cases in direct view. Effects will be similar to those described in the “Effects Common to All Action Alternatives” section above.

Effects of harvest in units 48, 49, 52, 54, and 55 could result in an unnatural-appearing line created by the western boundary of the units, which coincides with an existing road. Design and layout of the units need to consider this and avoid the appearance of the units “hanging” from the road. This can be achieved by varying the size and shape of these units, specifically the width of the unit that is adjacent to the road. Connecting these units may also help to avoid or minimize this effect.

The effects of prescribed burning in units or portion of units 1, 2, 6, 7, 8, 12, 13, 14, and 15 will be visible from various locations along the Clifty Mountain Trail. These effects will be visible in all viewing distances (foreground, middleground, and background viewing distances), and will be similar to those described in the “Effects Common to All Action Alternatives” section above.

Concern Level 2 Viewing Platforms

As stated in the “Landscape Visibility” section above, the Concern Level 2 viewing platforms to be analyzed include Forest Roads 314, 408, 427, and Timber Mountain Trail 51 and Middle Fork Boulder Trail 180. FRs 314, 408, and 427 form a continuous route through the project area, entering the project area from the northeast and primarily following Boulder Creek along its route to the Boulder Meadows trailhead site. As such, these routes will be analyzed together.

Forest Roads 314, 408, and 427

Effects of harvest will be visible in units or portions of units 30, 34, and 241 (near Black Mountain), 38, 40, 42, 46, 48, 49, 51, 52, 54, 55, 60, 64, 65, 67, 68, 79, 128, (above Boulder Creek) 144, 166, 168, 170, 174, 176, 178, 182, 183, 184, 186, 188, 200, 202, 206, 208, 210, 212, 216, 218, 220, 222, 224, 226, 228, 230, 233, 234, 235, 236, 238, and 239 (in or at the bottom of North Creek and East Fork Boulder Creek drainages). Effects of harvest in the visible units will be similar to those described in the section “Effects Common to All Action Alternatives” above.

In addition, these effects will be visible intermittently in foreground and middleground viewing distances; background views (as well as some foreground and middleground views) from these FRs will generally be blocked by intervening topography and/or vegetation. In addition, because the viewing platform is below many of the proposed harvest units (view angle +5 degrees or more), visibility of harvest effects in units on relatively flat ground (less than 20%) will be limited. Where activities take place on steeper ground, these activities are more visible, depending on size and surrounding vegetation height. From this viewing platform, this would apply to units such as portions of units 164, 186, 198, and 202.

Similar to effects visible from other CL 1 and 2 viewing platforms, effects from the over 40 acre patches will be visible from these roads. Effects will be similar to those described in the “Effects Common to All Action Alternatives” section above. Project design features are included to minimize these effects.

The proposed shelterwood and group selection units located along the north side of FR 408 (including units 60, 64, 65, 67, and 128) will also result in changes to stand characteristics as tree spacing will be increased due to the thinning component of this prescription. Some of the openings associated with the group selection component may be located adjacent to FR 408, resulting in open areas without trees. However, the combination of these group selection openings with the thinning will provide increased visual penetration into the stand without removing all of the trees throughout the unit, a beneficial effect in the long term.

Unit 128 surrounds private land on three sides. No recent harvest has occurred on this parcel. In order to avoid creating unnatural linear features, design and layout of this unit should avoid using the private land boundary for the unit boundary.

The effects of prescribed burning will be visible in units or portion of units 1, 2, 3, 4, 5, 6, 9, 12, 13, 14, and 15. FR 427 travels through burn unit 12, and effects would be visible in the immediate foreground, similar to those described above. Removal of brush in burn unit 12 in close proximity to FR 427 could result in encroachment by OHV or other motorized vehicles, resulting in the creation of new routes which may detract from the scenic integrity of the area (the Mt. Willard – Lake Estelle IRA).

These roads will offer primarily foreground and middleground views of the proposed harvest units.

Timber Mountain Trail (51)

Timber Mountain Trail extends from the Boulder Meadows trailhead site north and wraps around and ends near the Boulder Town Site. As such, it offers views of many of the proposed harvest and burning units.

Units 30, 34, and 241 (in Black Creek), 38, 40, 46, 48, 49, 51, 52, 54, 55, 60, 62, 64, 65, 66, 79, 116, 144, (above Boulder Creek), 100, 101, 102, 103, 106, 107, 108, 118, 120, 122, 128, 130, 132, (above McGinty Creek) units 196, 208, 210, 216, 218, 224, 228, 234, 236, 238, (in North Creek) East Fork Boulder Creek and North Creek, near junction with Boulder Creek.

Those areas in McGinty Creek where seedtree harvest units are adjacent to group selection/commercial thin units, unit boundaries will be blended to avoid creating an unnatural-appearing linear feature between the two treatment types. Meander the boundaries, and feather the boundaries.

Effects will be similar to those described in the “Effects Common to All Action Alternatives” section above.

The effects of prescribed burn will be visible in units or portion of units 1, 2, 6, 10, 11, 12, 13, and 14, and these effects will be similar to those described in the “Effects Common to All Action Alternatives” section above.

Middle Fork Boulder Trail (180)

Middle Fork Boulder Trail extends from the trailhead on FR 628B to Iron Mountain then to its junction with the Timber Mountain Trail (51). It also offers broad views of the project area.

Units 38, 50, 60, 65, 67, 144, 160, 162, 164, 166, 168, 170, 172, 174, 183, 188, 196, 200, 202, 204, 212, 220, 228, 230, 233, 234, 235, 236, and 238 (above Boulder Creek and in East Fork Boulder Creek), and 30, 34, 240, and 241 (in Black Creek). Effects will be similar to those described in the “Effects Common to All Action Alternatives” section above.

The effects of prescribed burn will be visible in units or portion of units 1, 2, 6, 7, 8, 10, 13, and 15. Effects will be similar to those described in the “Effects Common to All Action Alternatives” section above.

Cumulative Effects – Alternative 2

The cumulative effects analysis considers how other present and foreseeable future actions, as well as past actions, would combine with the proposed action to affect scenic resources. (See “Connected Actions, Past, Present, and Foreseeable Future Activities Relevant to Cumulative Effects Analysis” section above.)

A number of past, present, and reasonably foreseeable future actions have occurred, are occurring, or are expected to occur in the cumulative effects area (CEA) that generally have minimal effects to scenic resources including: road decommission and maintenance, tree planting, public use activities, trail maintenance, timber stand improvement, control and prevention of noxious weeds, maintain helispots, mining activities, telecommunications infrastructure maintenance, and private land activities. Effects resulting from these activities are generally localized, and would remain subordinate to the landscape character.

Actions that have a greater potential to affect scenic resources include: road construction, fire suppression, timber harvest (including slash treatments), and prescribed burning.

Road construction has resulted in color and line contrasts visible from the surrounding general forest area, similar to those described in the “Effects Common to All Action Alternatives” section above. Visibility depends viewing position and distance. Additionally, large cut and fill slopes can be reduced in distance views by screening vegetation.

Past timber harvest, employing a variety of prescriptions and logging systems, have occurred throughout the CEA on the National Forest System. Results of these actions are visible in varying degrees from the CL 1 and 2 viewing platforms examined in this analysis. In the middleground and background viewing distances, effects from these actions range from a slightly altered appearance, which is relatively unnoticeable, to a modified appearance that is more noticeable, depending on soils, aspect, vegetative species composition, and state of regeneration, as well as viewing distance. In foreground and near middleground viewing distances, effects of past harvest are less subordinate, and may even dominate the viewshed (depending, in part, on how recent the harvest has occurred).

The effects of these past activities may be noticeable to the average viewer and may dominate the viewshed in the foreground and near middleground, but are generally subordinate to the landscape character being viewed in middleground and background views. The effects of past timber harvest are most obvious in the foreground and near middleground of the CL 1 and 2 viewing platforms, and the effects of road construction can be visible in all viewing distances. The visible effects of these past activities may dominate the viewshed in this viewing distance for brief periods from routes, and for longer periods from CL1 sites, although many of these harvested stands have regenerated to the point where the effects (including those of road construction) are subordinate to the landscape character.

Fire suppression has affected the existing stands as described in the Vegetation Resource Report. Effects of this activity is described in the “Landscape Character” and “Existing Scenic Integrity” sections above.

Overall, the visible effects of the past, present, and reasonably foreseeable future activities represent an SIL of at least Moderate, meaning that deviations are visible, but remain subordinate to the landscape character. In some cases, the effects are not evident to forest visitors, representing an SIL of High. When considered in combination with the effects of the proposed action, the cumulative effects will meet the SIOs identified in the Forest Plan.

Summary of Effects - Alternative 2

Although project implementation of Alternative 2 would result in short-term negative effects (generally associated with harvest operations), long-term effects would be positive as the landscape moves toward desired conditions for scenic resources. In the long term, these effects will be reduced by the recovery of brush and groundcover, as well as tree regeneration. Long term effects would be increased variety in tree species (including long-lived, early seral species such as western white pine and larch consistent with historic patterns and diversity. The overall physical appearance and cultural context of the landscape that gives the project area its identity and ‘sense of place’ would not be changed in the long term by Alternative 2. The overriding image of the area and its surroundings as being spacious and encompassing scenic variety would be maintained.

The visible effects of this alternative may dominate the viewshed for a period of time as described in the analysis until ground vegetation has recovered and harvested stands have regenerated to the point where the effects are either subordinate to the landscape character or are no longer evident. These changes would not be of large enough scale or of long enough duration to influence the forest landscape character. Implementation of project design criteria for scenic resources would reduce impacts and over time treated

areas would blend with the surrounding area as they move toward desired condition for scenic resources as set forth in the Forest Plan.

Compliance with Forest Plan and Other Relevant Laws, Regulations, and Policies - Alternative 2

With implementation of the outlined design features, this alternative would meet the SIOs identified in the Forest Plan.

Alternative 3

Project Design Features and Mitigation Measures

Project design features and mitigation measures will be the same as those described above for Alternative 2.

Direct and Indirect Effects – Alternative 3

Effects of harvest under Alternative 3 will be the same as those described above for Alternative 2.

Effects of prescribed burning will be greatly limited as the majority of the prescribed burning units are not included in this alternative. This will reduce the beneficial effects of this activity as described in the “Effects Common to All Action Alternatives” section above.

Cumulative Effects – Alternative 3

The cumulative effects of this alternative will be similar to those described for Alternative 2 above, except there will be fewer effects associated with proposed prescribed burning units as described above.

Summary of Effects - Alternative 3

See “Summary of Effects – Alternative 2” section above.

Compliance with Forest Plan and Other Relevant Laws, Regulations, and Policies - Alternative 3

With implementation of the outlined design features, this alternative would meet the SIOs identified in the Forest Plan.

Summary

Summary of Environmental Effects

Both Alternative 2 and Alternative 3 will have the same effects associated with the vegetation management prescriptions, as those prescriptions do not differ between alternatives. Effects will differ between alternatives relative to the prescribed burning activities, as alternative 3 proposes to treat fewer acres than alternative 2. This will result in fewer short term effects as described in this report, but will mean fewer acres where fire is introduced into this landscape, which will have a beneficial effect on scenic resources in the long term.

Table 4. Summary comparison of environmental effects to Scenic Resources

Resource Element	Indicator/Measure	Alternative 1 No Action	Alternative 2 Proposed Action	Alternative 3
Scenic Integrity	Meet Forest Plan SIOs	Would not meet SIOs in the long term and does not move project area toward Forest Plan desired conditions for scenic resources. Long term reduction in natural diversity and associated form, color, texture and variety.	Effects of vegetation management prescriptions would be visible and will dominate views from some CL 1 and 2 viewing platforms in the short term. With implementation of design features, vegetation management prescriptions will result in long term increase in natural diversity and associated form, color, and texture variety. Prescribed burning will have similar effects resulting from introduction of fire into this landscape. Long term beneficial effect over larger area when compared to alternatives 1 and 3.	Same effects as alternative 2 with respect to vegetation management prescriptions. Lesser degree of beneficial effect due to reduced prescribed burn acres compared to alternative 2.

Monitoring Recommendations

Once the project has been implemented it should be reviewed in the field by the Landscape Architect to determine how well it meets the Forest Plan Scenic Integrity Objectives. Of concern would be design and layout of the harvest units (including edge treatment and feathering), retention of trees to break up the created opening, and the visual impact of skyline logging systems. This review would then be documented in the Idaho Panhandle National Forest Monitoring Report.

References Cited

USDA Forest Service. 1995. Agriculture Handbook #701, *Landscape Aesthetics: A Handbook for Scenery Management*. <http://naldr.nal.usda.gov/>.

USDA Forest Service Northern Region. 2011. *Northern Region Scenic Resource Mitigation Menu & Design Considerations for Vegetation Treatments*.

USDA Forest Service Idaho Panhandle National Forest. 2015. *Idaho Panhandle National Forests Land Management Plan 2015 Revision*.

USDA Forest Service Idaho Panhandle National Forest. 2016. *The IPNF Implementation Guide for Scenery Management: Understanding the how, what, and when of implementation under the 2015 IPNF Forest Plan (DRAFT)*.